

# MONTHLY AIR QUALITY REPORT FOR JANUARY 2005

## AOI COLOR SCALE

GOOD	MODERATE	UNHEALTHY FOR SENSITIVE GROUPS	UNHEALTHY
0-50	51-100	101-150	151-200

## Calendar of maximum AQI values & their corresponding color for January 2005\*

\*Preliminary data

## SAMPLE POLLUTANT REPORTING BOX

1	O3	CO			
(day of month)	PM10	PM2.5			

	SUN MON			TUES			WED			THU			FR	1	SAT					
																	1	26	32	
																		1	43	n/a
2	27	31	3	27	17	4	30	10	5	29	17	6	27	36	7	27	24	8	27	33
	27	48	,	08	05	7	11	13	,	29	19	Ö	38	29	,	43	36	0	44	48
9	25	42	10	23	30	11	29	27	12	26	11	13	23	24	14	24	38	15	26	47
	35	49	10	61	61	11	72	26	12	43	27	13	56	44	1-7	84	60	13	54	69
16	30	50	17	29	43	18	30	35	19	32	33	20	30	38	21	21	24	22	30	20
10	50	71	17	84	73	10	80	40	1)	91	40	20	91	48	21	67	46	22	40	37
23	29	26	24	27	18	25	29	25	26	20	18	27	28	16	28	31	34	29	31	23
23	43	31	24	29	27	23	55	37	20	35	29	21	19	16	20	47	34	2)	21	34
30	29	22	31	29	36				_			_						_		
30	19	n/a	51	52	40															

Exceedance days during JAN 2005-

Total= 0 <u>Date</u> <u>Max AQI</u> <u>Pollutant</u> <u>Site/s</u>

Health Watches issued during JAN 2005-

Total= 1 <u>Date Max AQI</u> <u>Pollutant</u> <u>Site/s</u>

20th 91 PM-10 West Forty Third

High Pollution Advisories issued during JAN 2005-

Total= 0 <u>Date</u> <u>Max AQI</u> <u>Pollutant</u> <u>Site/s</u>

<u>Concentration Recap:</u> Days in the Good category:

Days in the Moderate category:

Days in the Unhealthy for Sensitive Groups category:

Days in the Unhealthy category:

O

Total Forecast Days:

13

0

31

## Narrative:

The month of January 2005 was marked by unusually heavy rain episodes over the Phoenix forecast area; however, between these episodes elevated (but not unhealthy) particulate pollutant levels also occurred. A series of mid-latitude upper troughs, a few that managed to tap into sub-tropical moisture, dropped rain over the metropolitan area on the 3rd, 4th, 7th, 10th, 21st, 22nd, 24th, 26th, 27th, and 29th. A long spell of stable weather - characterized by a ridge aloft - took place from the 12th through the 20th and resulted in mostly light winds, temperature inversions, degraded visibility, low mixing depths, and dispersion that ranged from poor to fair. As a consequence, the National Weather Service in Phoenix issued a string of Air Stagnation Advisories for the 13th thru the 16th. Maximum coarse (PM-10) and fine (PM-2.5) particle pollutant concentrations were in the middle to upper range of the Moderate AQI category during this period. Although in the Good category, the highest carbon monoxide concentration of the month was also measured on the 16th. PM-10 levels subsequently peaked on the 19th and 20th; on the latter day the mixing depth was only 2100'. For these reasons the Arizona Department of Environmental Quality issued a PM-10 Health Advisory for the 20th. The next two days a weather disturbance brought more rain and particle pollutant levels dropped dramatically and stayed near or in the Good category the rest of the month. Meanwhile, maximum ozone concentrations were quite low in January which is typically the case until Spring. -Reith







